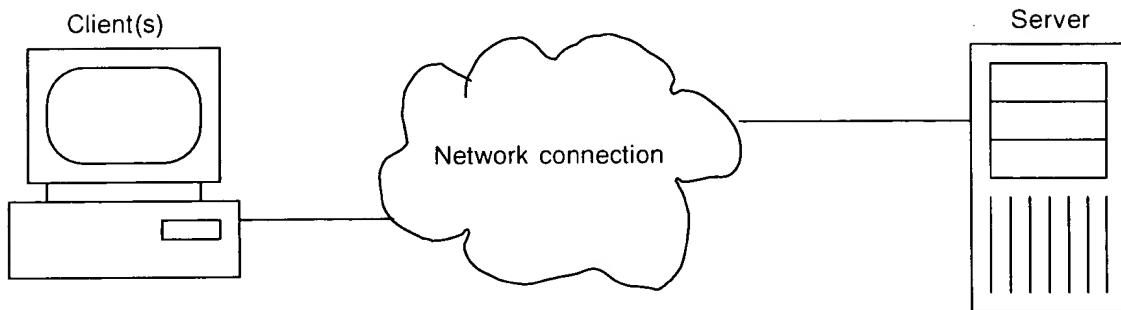


Preferred Embodiment
Minimal configuration (Single Server)

Fig. 0a



If valid cookie present, skip to step 3...

(0)	Client retrieves disclaimer / registration, etc. page	
(1)	Client submits acceptance / registration data, etc.	
(2)	Server replies with cookie data initialization	
<hr/>		
(3)	Client retrieves user interface for simulation, calculation, etc.	
(4)	Client submits data for calculation: calculation data	(data saved)
(5)	Server returns "Processing" message w/ emb. refresh + updated cookie data	
(6)	Client auto refresh to getresults.pl + new cookie data	(authenticate & check vs. limits) if fail
(7a)	"Overuse" message	
(7b)	Results (Any combo of markup, graphics and data)*	if succeed

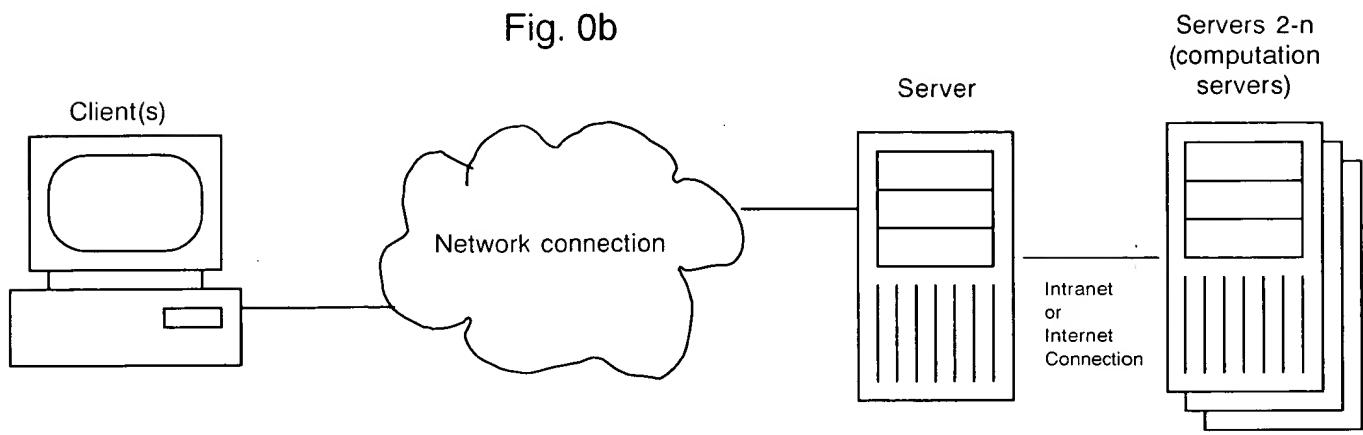
*In drawings 1-4 Client instigates data transfer,
arrows indicate direction of transfer*

Client to Server
Server to Client

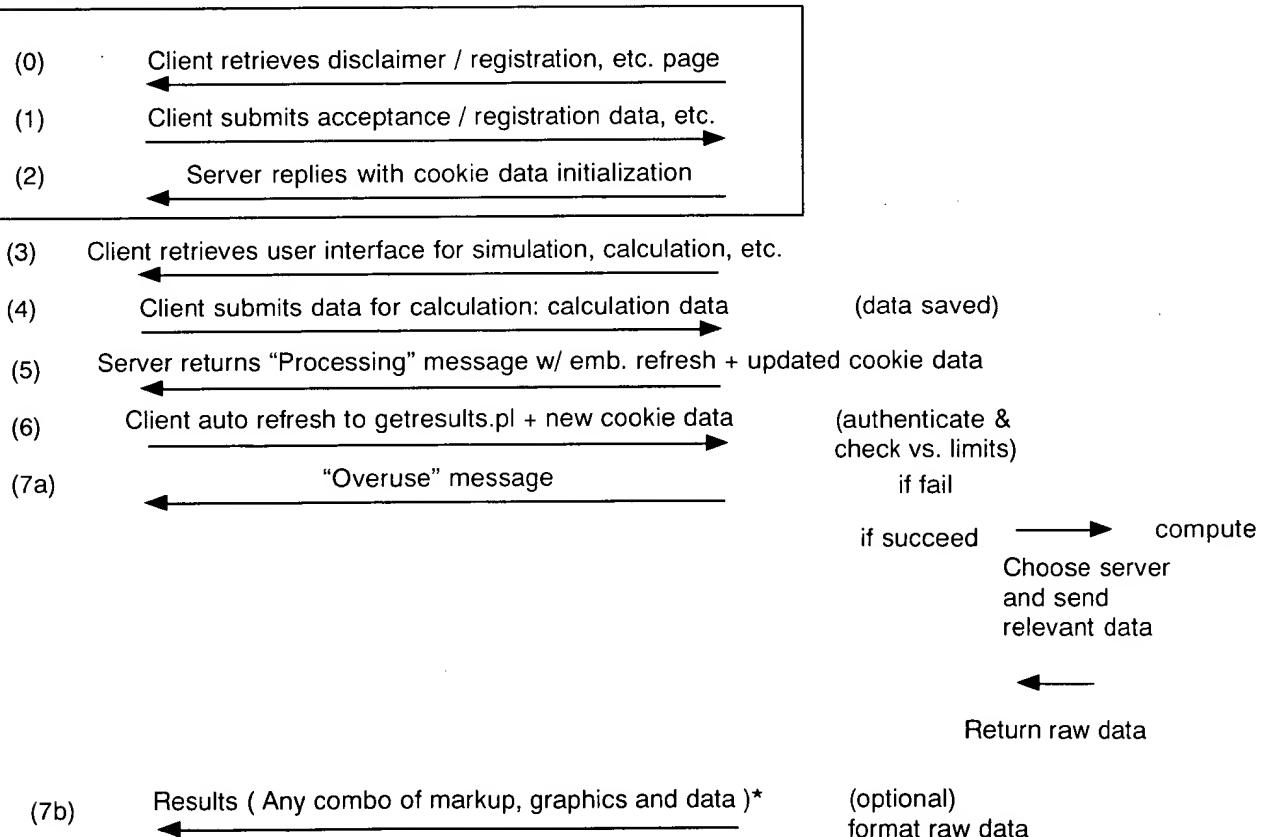
*OPTIONAL VALIDATION DATABASE NOT SHOWN
IS TYPICALLY COLOCATED WITH VALIDATION PROCESS,
BUT CAN BE LOCATED ANYWHERE ON AN INTERNET OR INTRANET*

**Internet Server combined with
one or more Private Computation
Servers**

Fig. 0b



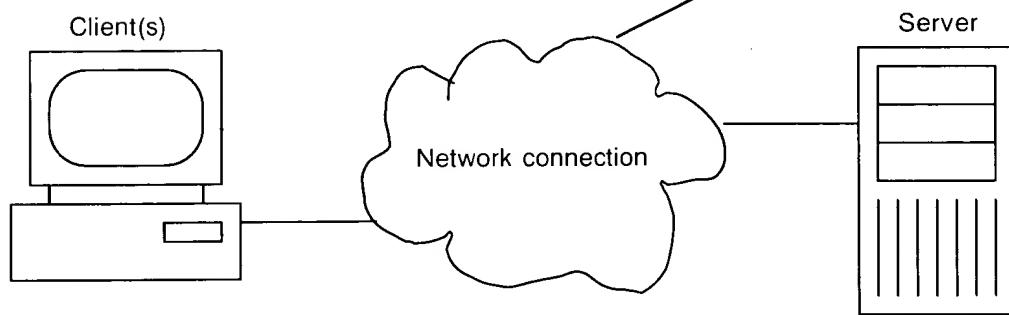
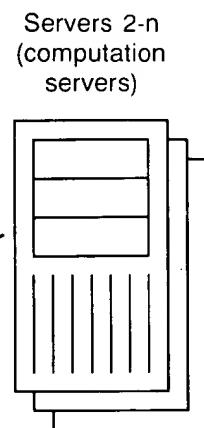
If valid cookie present, skip to step 3...



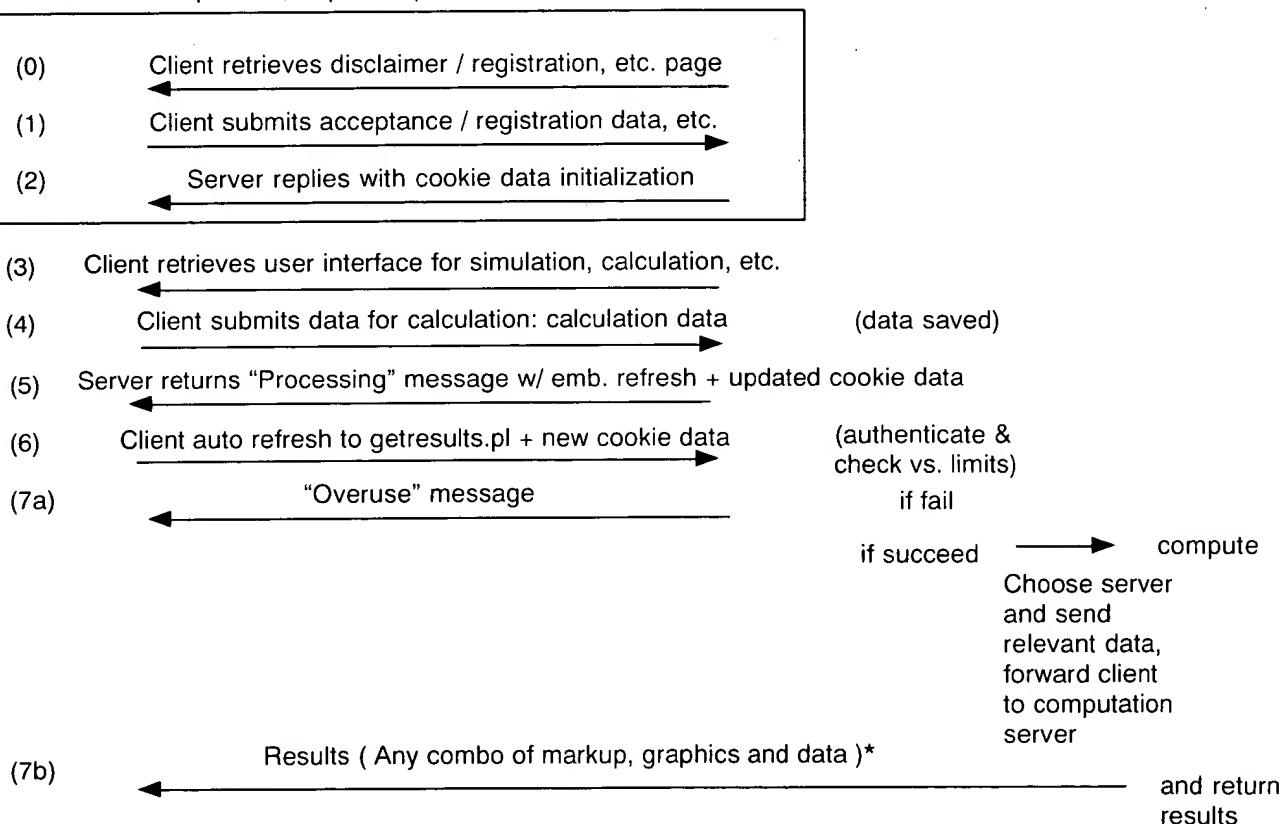
*OPTIONAL VALIDATION DATABASE NOT SHOWN
IS TYPICALLY COLOCATED WITH VALIDATION PROCESS,
BUT CAN BE LOCATED ANYWHERE ON AN INTERNET OR INTRANET*

Internet Server combined with
one or more Client-visible
Computation Servers,
Method Set C

Fig. 0c



If valid cookie present, skip to step 3...

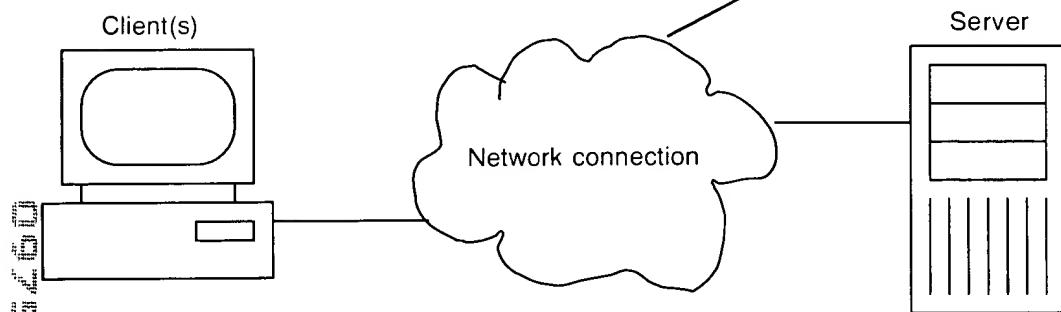
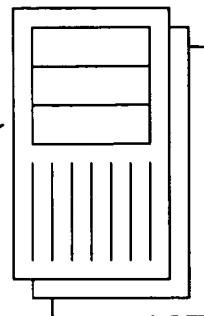


*OPTIONAL VALIDATION DATABASE NOT SHOWN
IS TYPICALLY COLOCATED WITH VALIDATION PROCESS,
BUT CAN BE LOCATED ANYWHERE ON AN INTERNET OR INTRANET*

Internet Server combined with
one or more Client-visible
Computation Servers,
Method Set D

Fig. 0d

Servers 2-n
(computation
servers)



If valid cookie present, skip to step 3...

<p>(0) Client retrieves disclaimer / registration, etc. page</p> <p>(1) Client submits acceptance / registration data, etc.</p> <p>(2) Server replies with cookie data initialization</p>	<p>(3) Client retrieves user interface for simulation, calculation, etc.</p> <p>(4) Client submits data for calculation: calculation data</p> <p>(5) Server returns "Processing" message w/ emb. refresh + updated cookie data</p> <p>(6) Client auto refresh to getresults.pl + new cookie data</p>	<p>(data saved)</p> <p>Choose server and send relevant data, forward client to computation server</p> <p>→ (authenticate & check vs. limits)</p>
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(7a) "Overuse" message

(7b) Results (Any combo of markup, graphics and data)*

if fail

if succeed, compute and return result

*OPTIONAL VALIDATION DATABASE NOT SHOWN
IS TYPICALLY COLOCATED WITH VALIDATION PROCESS,
BUT CAN BE LOCATED ANYWHERE ON AN INTERNET OR INTRANET*

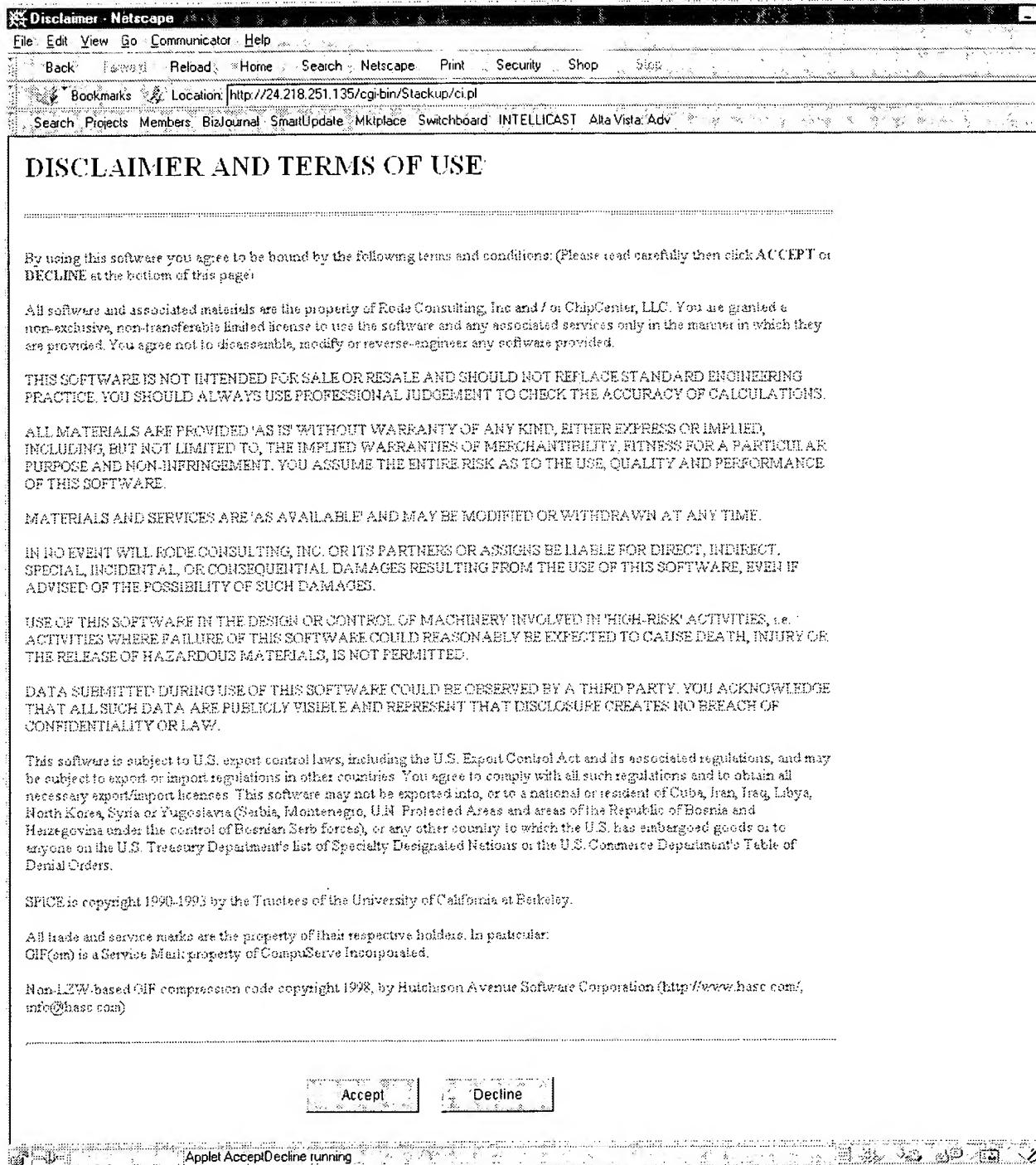


Fig. 1
D5

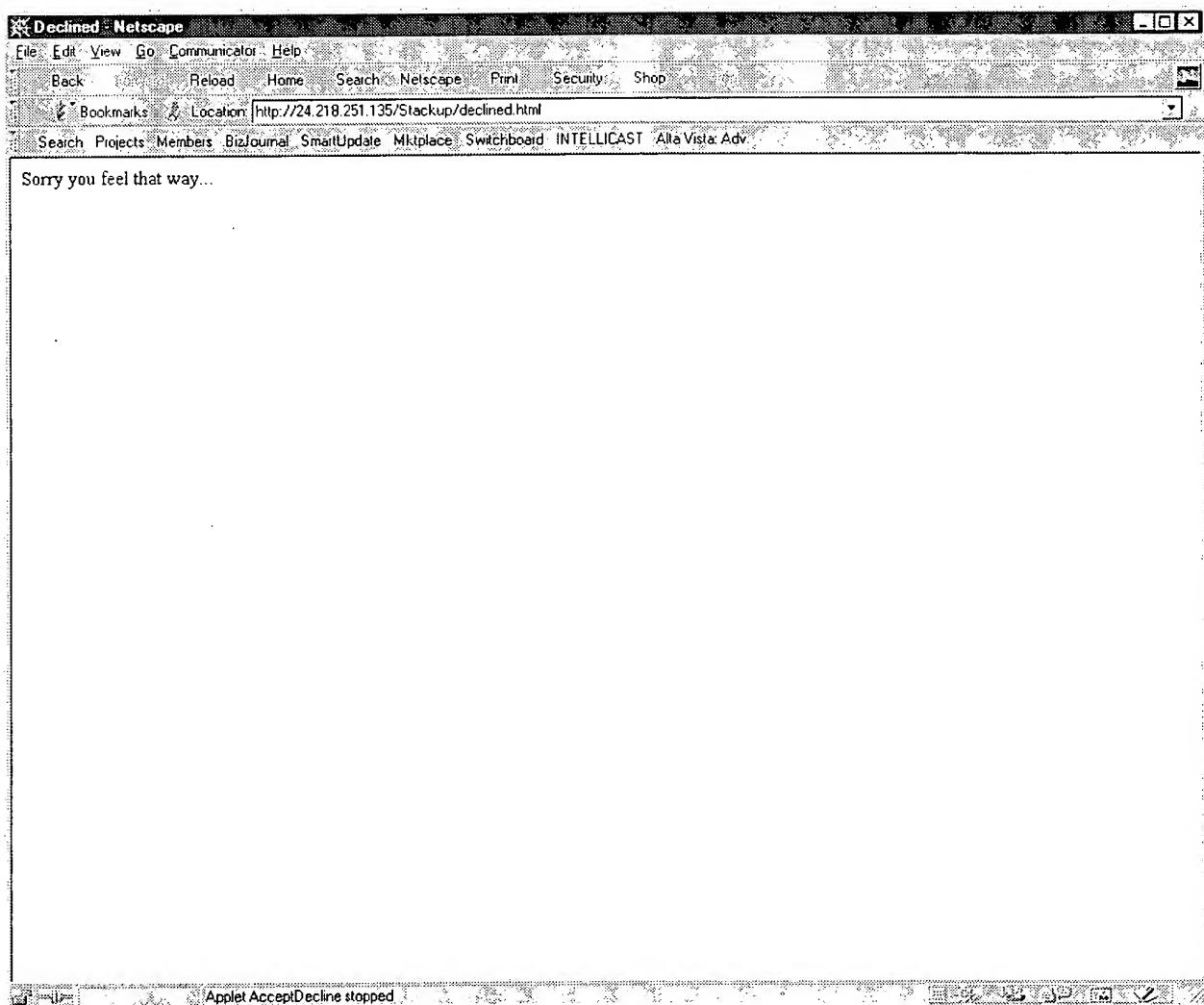


Fig. 2A
D6

09756153 = 010601

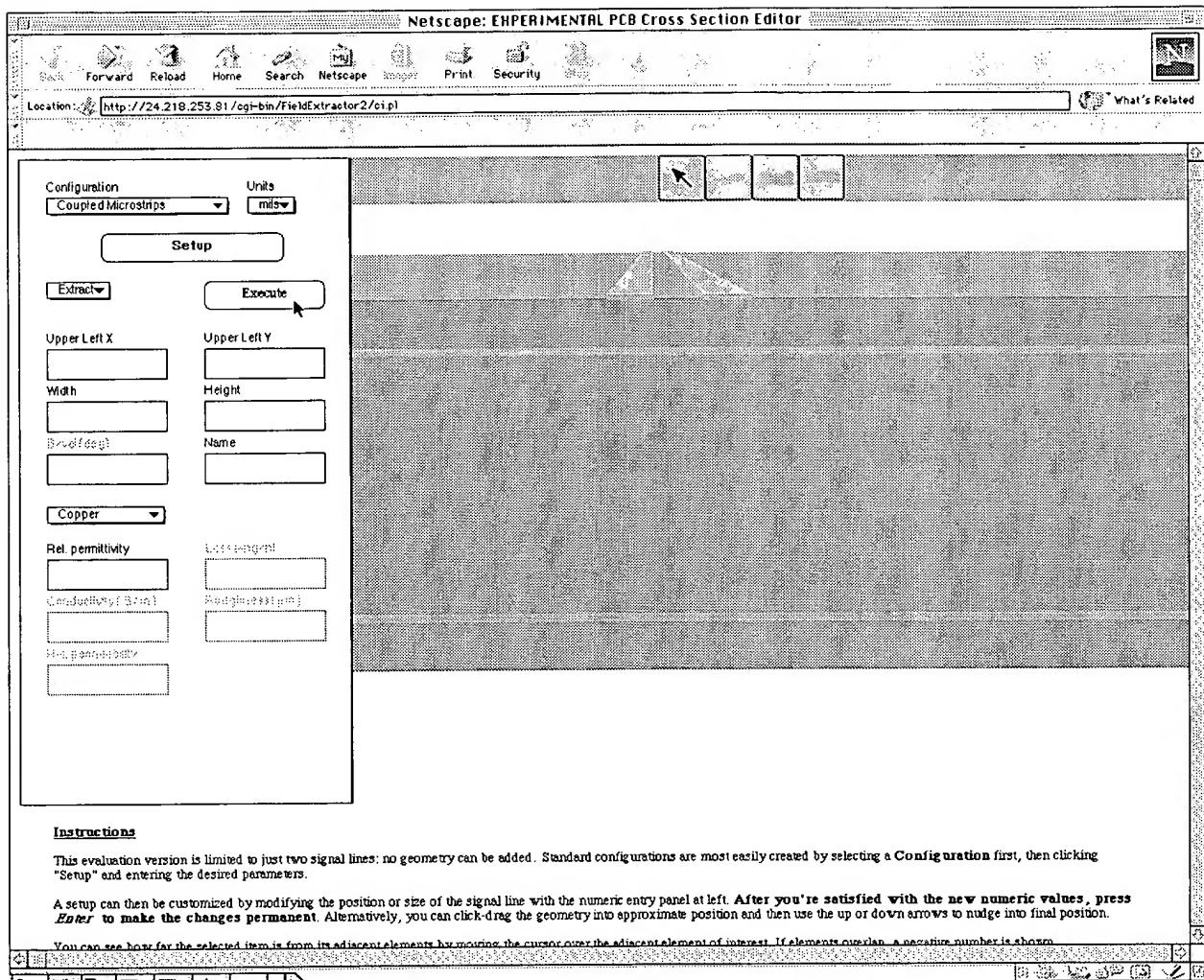


Fig. 2B
D7

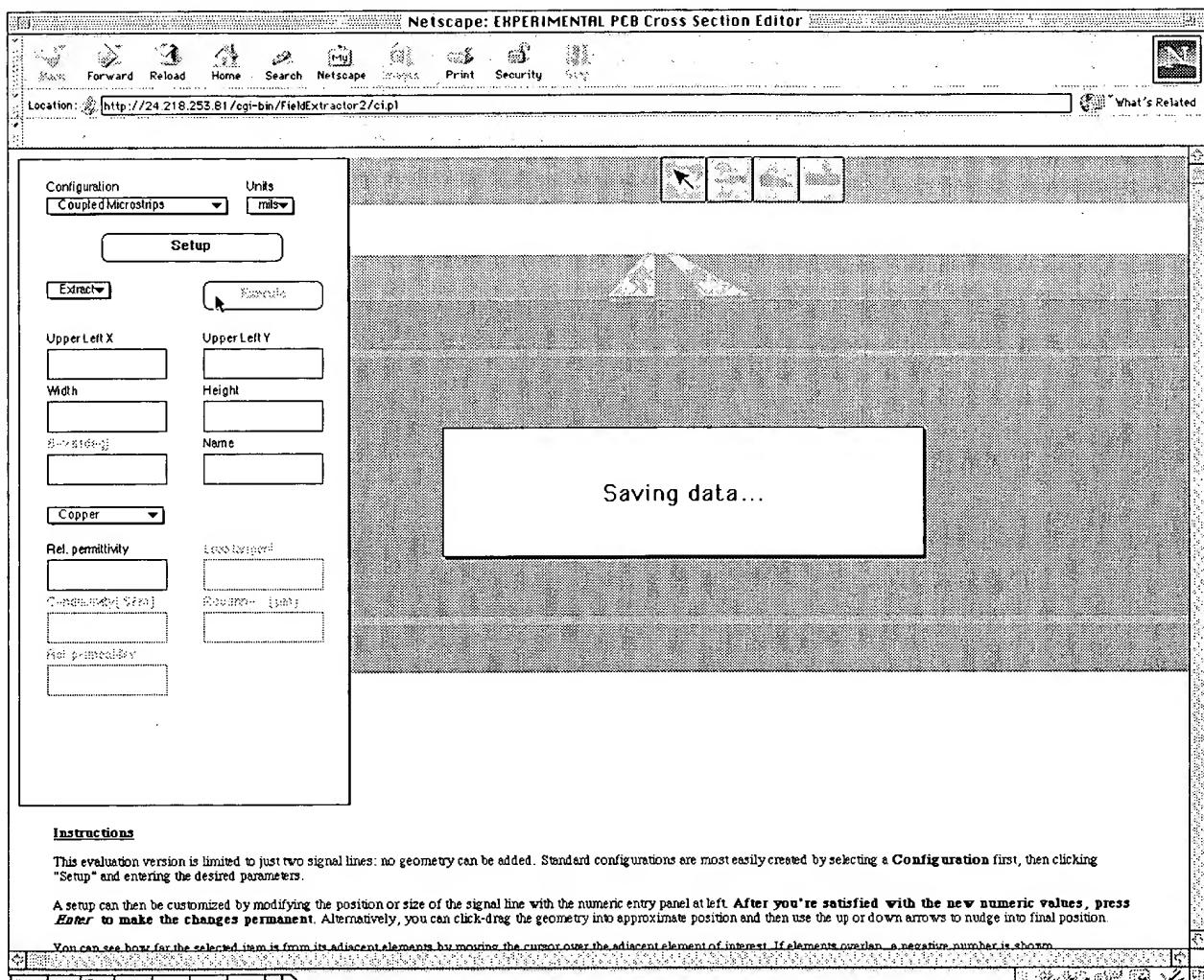


Fig. 3
D8

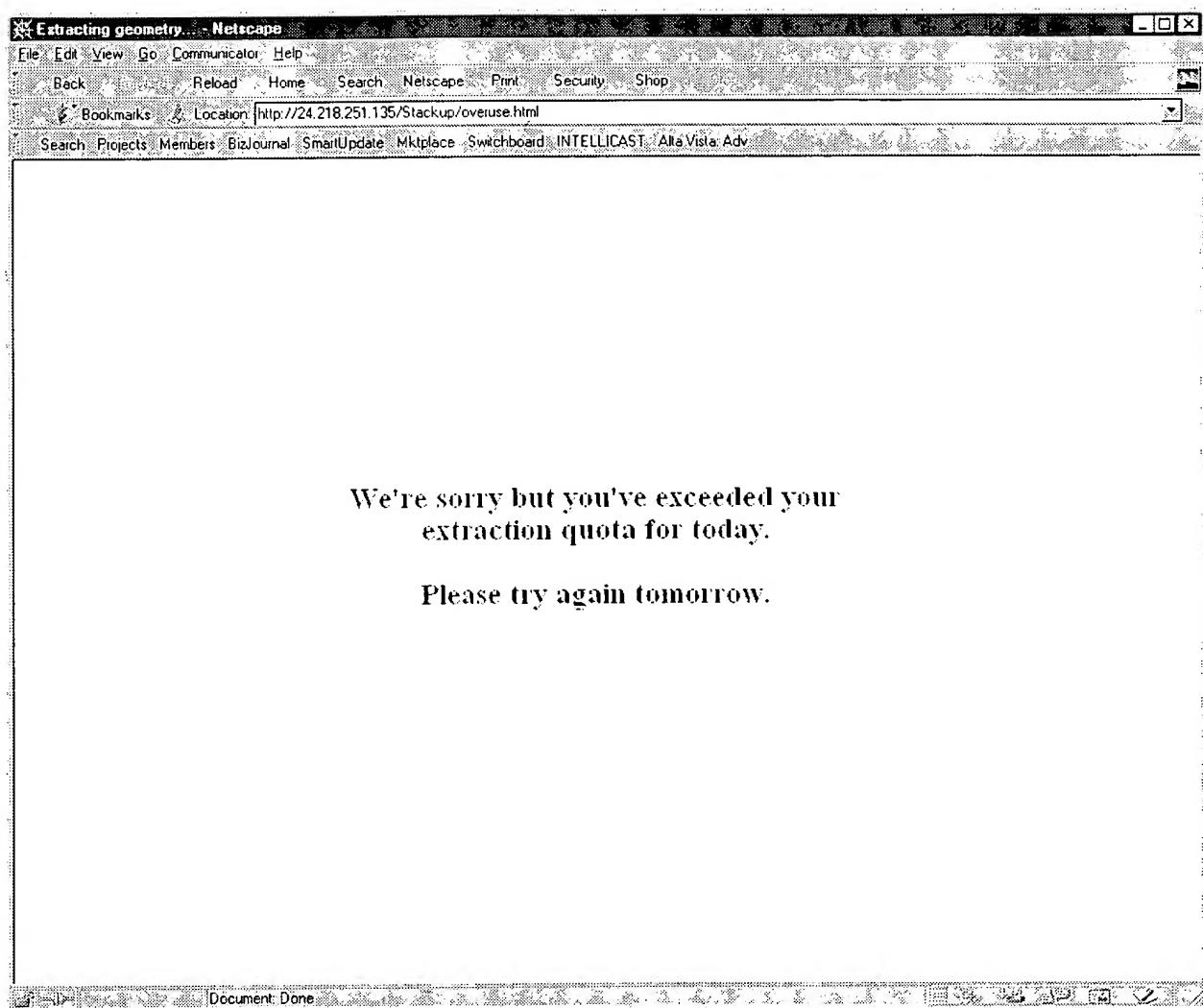


Fig. 4A
D9

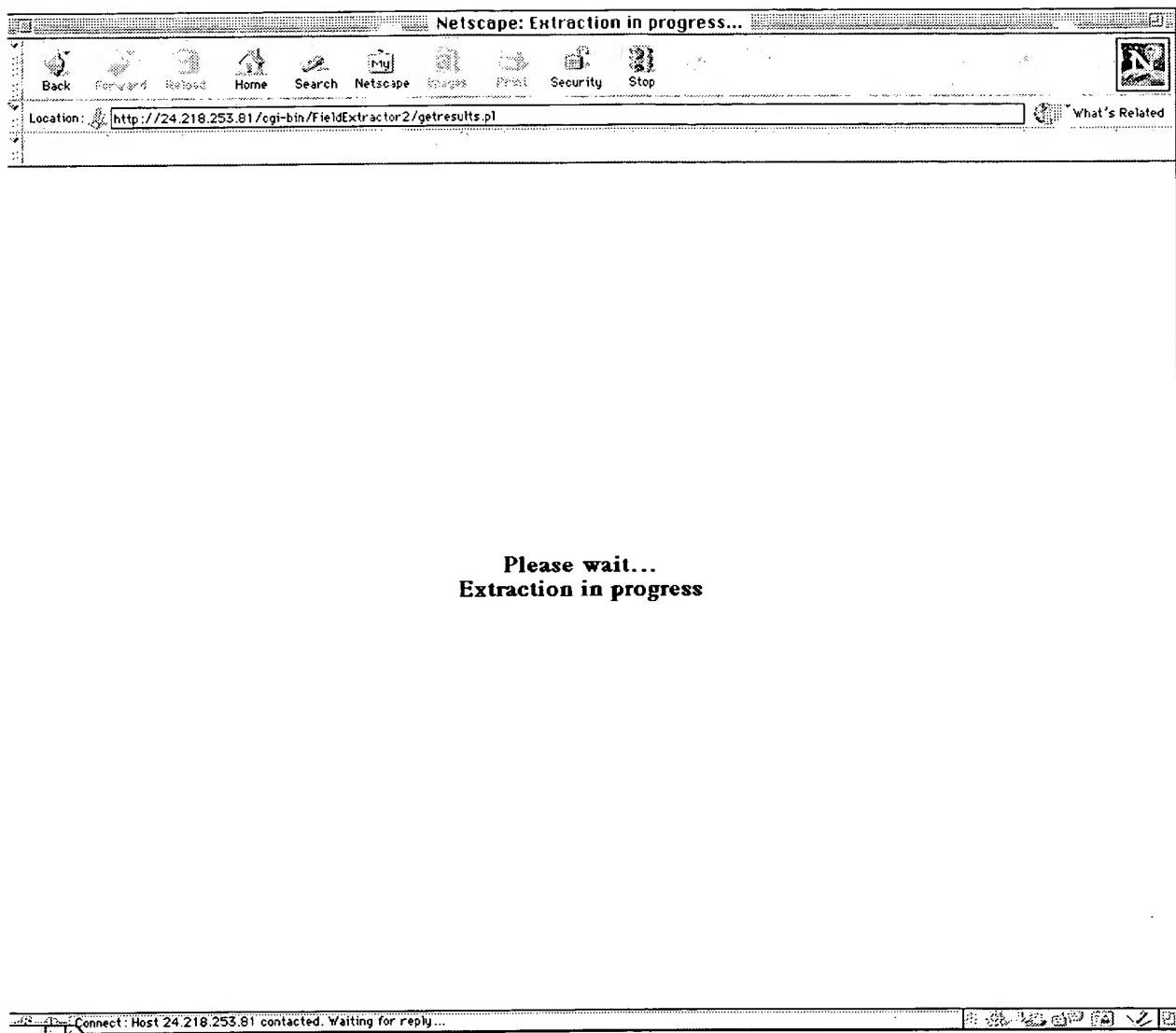


Fig 4B
D10

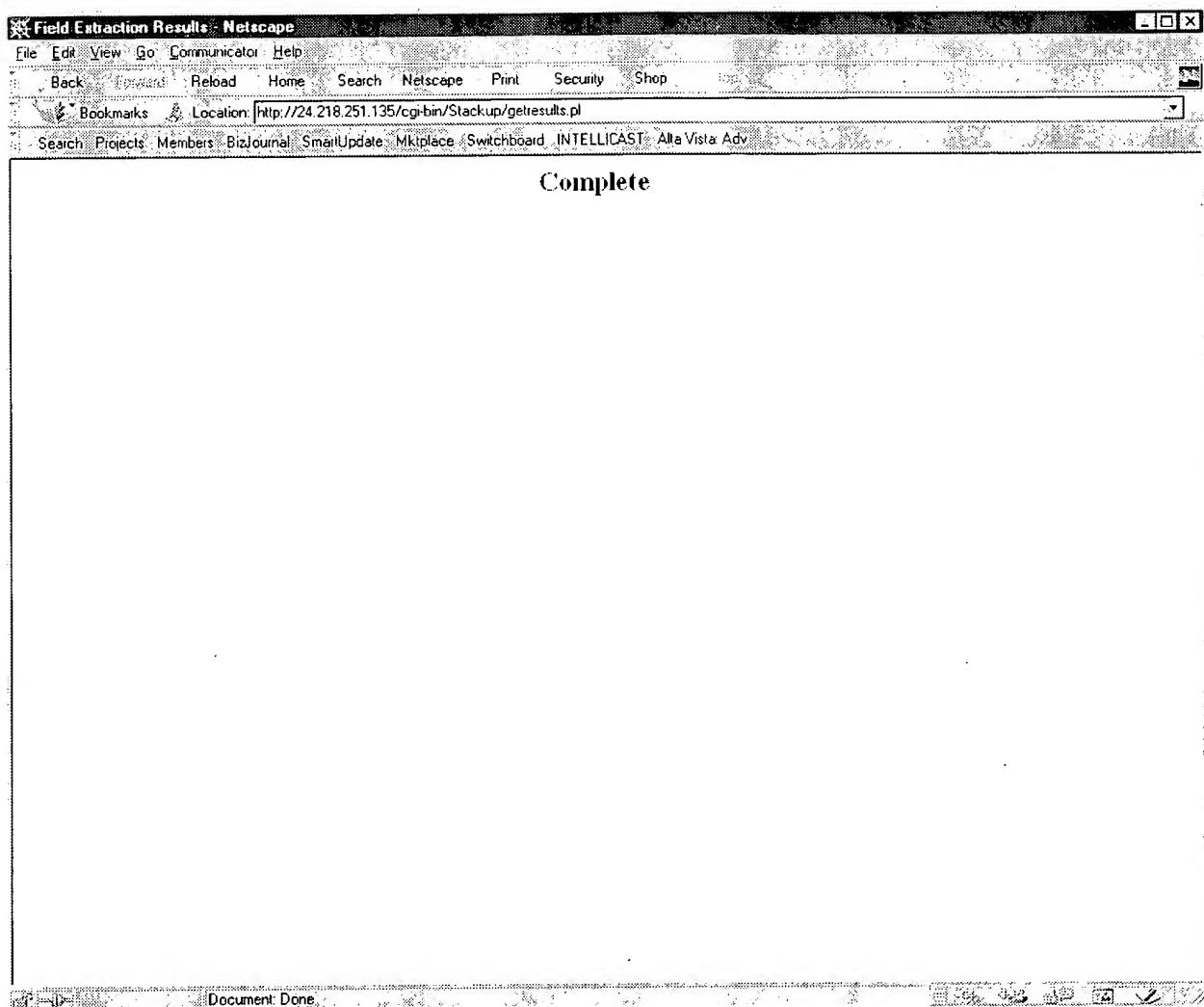


Fig 5
D11